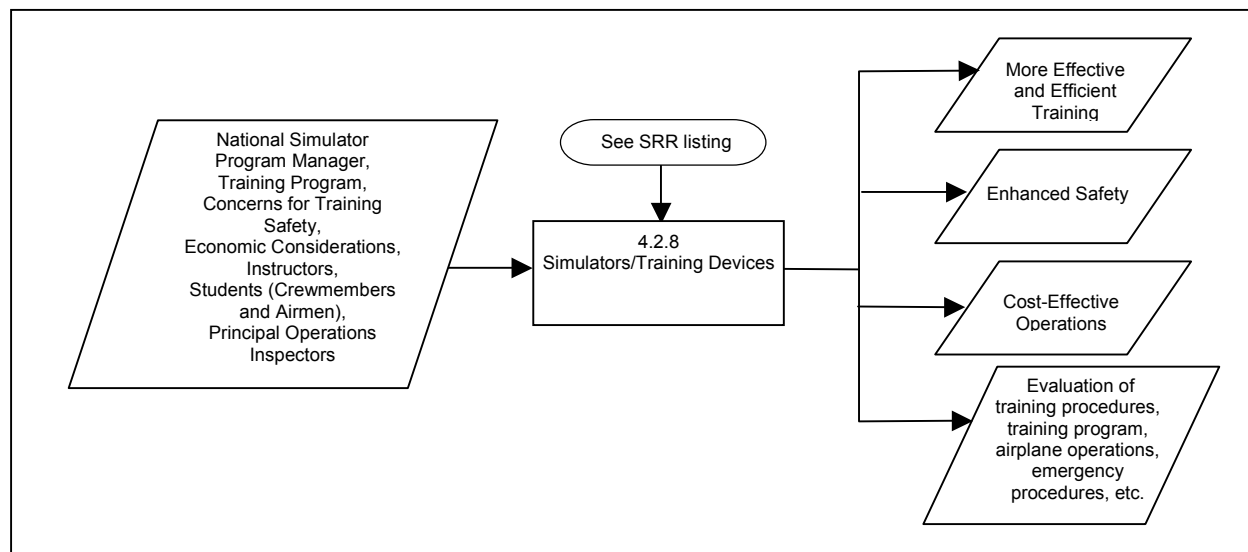


Safety Attribute Inspection (SAI) Job Aid



ELEMENT SUMMARY INFORMATION

Element: 4.2.8 Simulators/Training Devices

Purpose of this Element (Air Carrier's responsibility): To ensure that simulators, training devices and training aids meet the requirements of its training program(s).

Objective (FAA responsibility): To determine if the air carrier's Simulators/Training Devices process includes safety attributes.

Inputs:

- National Simulator Program Manager
- Training Program
- Concerns for Training Safety
- Economic Considerations
- Instructors
- Students (Crewmembers and Airmen)
- Principal Operations Inspectors

Outputs:

- More Effective and Efficient Training
- Enhanced Safety
- Cost-Effective Operations
- Evaluation of training procedures, training programs airplane operations, emergency procedures, etc.

Performance Measures:

- Usage of simulators and training devices is consistent with authorizations and approvals.
- Windshear training is conducted in an approved simulator.

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SRR:

- 121.407 (a, c, d) Training Program
- 121.409 (b, d) Training courses
- SFAR 58.9(b)(3) Advanced Qualification Program

Other CFRs and/or FAA Guidance:

- FAA Order 8400.10, Volume 3, Chapter 2, Section 5, Paragraph 445
- FAA Order 8400.10, Volume 3, Chapter 2, Section 6
- FAA Order 8400.10, Volume 3, Chapter 2, Section 7, Paragraph 547
- Refer to appropriate Advisory Circulars.

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SRR SPECIFIC INFORMATION

SRR	Intent	Inspectors
121.407 (a)	To specify the approval and maintenance requirements for simulators and training devices.	Certification: Operations Surveillance: Operations and Airworthiness (Avionics)
121.407 (c)	To specify the conditions under which a simulator may be used in lieu of an airplane.	Certification: Operations Surveillance: Operations
121.407 (d)	To require that a simulator be used for low altitude windshear training.	Certification: Operations Surveillance: Operations
121.409 (b)	To specify the content of training courses using airplane simulators.	Certification: Operations Surveillance: Operations
121.409 (d)	To require the use of a simulator which is type-specific for low altitude windshear training.	Certification: Operations Surveillance: Operations

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4.2.8 Simulators/Training Devices

SECTION 1 - RESPONSIBILITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable, qualified, and knowledgeable person who is accountable for the quality of the Simulators/Training Devices process.

To meet this objective, the inspector will accomplish the following tasks:

1. Identify the person who is responsible for the quality of the Simulators/Training Devices process.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Simulators/Training Devices process with the person.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Is there a clearly identifiable person who is answerable for the quality of the Simulators/Training Devices process?	<input type="checkbox"/> YES If yes, provide the name: <input type="checkbox"/> NO If no, explain:
2. Does the person understand the procedures associated with the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Does the person understand the controls associated with the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Does the person understand the interfaces associated with the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the person understand the process measurements associated with the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. Is the responsibility of this position clearly documented in the air carrier's Manual(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7. Are the qualification standards for this position clearly documented?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7a Are the qualification standards for this position appropriate for the duties that are assigned?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the person meet the qualification standards?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
9. Does the person acknowledge that he/she has responsibility for the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
10. Does the person know who has authority to establish and modify the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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4.2.8 Simulators/Training Devices

SECTION 2 – AUTHORITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable, qualified, and knowledgeable person with the authority to establish and modify the Simulators/Training Devices process.

To meet this objective, the inspector will accomplish the following tasks:

1. Identify the person who has the authority to establish or modify the Simulators/Training Devices process.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Simulators/Training Devices process with the person.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Is there a clearly identifiable person who has authority to establish and modify the air carrier's policies for the Simulators/Training Devices process?	<input type="checkbox"/> YES If yes, provide the name: <input type="checkbox"/> NO If no, explain:
2. Does the person understand the procedures associated with the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Does the person understand the controls associated with the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Does the person understand the interfaces associated with the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the person understand the process measurements associated with the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. Is the authority of this position clearly documented in the air carrier's Manual(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7. Are the qualification standards for this position clearly documented?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7a Are the qualification standards for this position appropriate for the duties that are assigned?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the person meet the qualification standards?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
9. Does the person acknowledge that he/she has authority for the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
10. Does the person know who has the responsibility for the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
11. Are the procedures for delegation of authority clearly documented for the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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4.2.8 Simulators/Training Devices

SECTION 3 – PROCEDURES ATTRIBUTE

Objective: To determine if the air carrier has documented procedures for accomplishing the Simulators/Training Devices process.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Simulators/Training Devices process to ensure that they contain who, what, where, when, and how.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI.
3. Discuss the Simulators/Training Devices process with appropriate personnel to gain an understanding of the procedures.
4. Observe the Simulators/Training Devices process to gain an understanding of the procedures.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Do written procedures exist to achieve the desired result of the Simulators/Training Devices process:

1.1 To obtain POI approval for use of simulators and training devices? [SFAR 58.9(b); SRR 121.407(a)(c)(d)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.2 To maintain simulators and training devices on a daily basis (e.g., Inspection and Maintenance)? [SFAR 58.9 (b)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.3 For to ensure use of the simulator MEL?	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.4 To obtain approval of an MEL for each make and model simulator?	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.5 To record the national simulator team approvals and periodic inspections? [121.407 (a)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.6 To ensure that simulators and training devices are configured the same way as the airplane they represent? [121.407 (a), 121.409 (d)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.7 To ensure use of the maintenance log to report discrepancies? [121.407 (a)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.8 To ensure use of the maintenance log to correct discrepancies? [121.407 (a)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A

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4.2.8 Simulators/Training Devices

SECTION 3 – PROCEDURES ATTRIBUTE

1.9 To ensure that simulators and related procedures are upgraded to reflect operational/fleet changes and to ensure that these changes are communicated to the training program and inspection department? [121.407 (a)]	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.10 To ensure that instructors and check airmen are using simulators and training devices consistent with company procedures for training and checking? [121.407 (c)]	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.11 To review and compare the failure and pass rate of the company's flight crew members and the pass/fail rate administered by individual check airmen?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.12 To maintain records of simulator usage?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.13 To ensure that simulators are configured to meet low altitude windshear training requirements? [121.407 (d), 121.409 (d)]	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.14 Use simulators to ensure changes in procedures prior to implementation in revenue operations?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.15 To ensure that an independent source solicits feedback on equipment and procedures from line pilots who have recently completed simulator training and checking?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
2. Do the procedures identify: who, what, where, when and how?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain:
3. Are the procedures in compliance with the CFR(s)?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain:
4. Do the procedures conform to other written guidance (E.g., Operations Specifications, FAA Orders, Airworthiness Directives, Advisory Circulars, Handbook Bulletins, Directives, and Manufacturer's Recommendations)?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain:
5. Does the air carrier have the resources to support the written procedures for the Simulators/Training Devices process?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain:
6. If alternate procedures exist for use during irregular conditions, do they achieve the same desired results as the primary procedures so that an equivalent level of safety is maintained? (E.g., a manual system used as a result of equipment failure.)	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A, No alternate procedures exist for this element	If no, explain:
7. Are the procedures published in different manuals relating to the Simulators/Training Devices process consistent?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain:
8. Does the air carrier have a documented method for assessing the impacts of procedural changes to the Simulators/Training Devices process?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain:

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4.2.8 Simulators/Training Devices

SECTION 4 – CONTROL ATTRIBUTE

Objective: To determine if checks and restraints are designed into the Simulators/Training Devices process to ensure a desired result is achieved.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Simulators/Training Devices process.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI.
3. Discuss the Simulators/Training Devices process with appropriate personnel to gain an understanding of the controls.
4. Observe the Simulators/Training Devices process to gain an understanding of the controls.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Are the following checks and restraints built into the Simulators/Training Devices process:

1.1 Are independent observations (both announced and unannounced) periodically conducted of simulator training and checking?

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.2 Are procedures in effect to ensure that all simulators and all level six and seven training devices are certified by the national simulator evaluation team? [SRR 121.407(a)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.3 Is there a record maintained of the simulator configuration for each training and/or checking session?

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.4 Is the simulator configuration record tied to each individual student's record?

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

2. Do the checks and restraints ensure the desired result is achieved for the Simulators/Training Devices process?

☐ YES If no, explain:
☐ NO

3. Does the air carrier have a documented method for assessing the impacts of any changes made to checks and restraints in the Simulators/Training Devices process?

☐ YES If no, explain:
☐ NO

4. Does the air carrier have the resources to support the checks and restraints for the Simulators/Training Devices process?

☐ YES If no, explain:
☐ NO

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4.2.8 Simulators/Training Devices

SECTION 5 - PROCESS MEASUREMENT ATTRIBUTE

Objective: To determine if the air carrier measures and assesses the Simulators/Training Devices process, to identify and correct problems or potential problems.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Simulators/Training Devices process.
2. Discuss the Simulators/Training Devices process with appropriate personnel to gain an understanding of the process measures.
3. Observe the Simulators/Training Devices process to gain an understanding of the process measures.

To meet this objective, the inspector will determine and record answers to the following questions:

1. <Deleted>

2. Does the air carrier's Simulators/Training Devices process include the following process measurements?

2.1 *Simulators and training devices are used in accordance with air carrier and FAA procedures.*

☐ YES **If no or N/A, explain:**
☐ No
☐ N/A

2.2 *Results of the feedback between line pilots and the Director of Flight Safety are being analyzed for:*

2.2.1 *Effectiveness of training;*

☐ YES **If no or N/A, explain:**
☐ No
☐ N/A

2.2.2 *Consistency of training; and*

☐ YES **If no or N/A, explain:**
☐ No
☐ N/A

2.2.3 *Standardization of training.*

☐ YES **If no or N/A, explain:**
☐ No
☐ N/A

3. Does the air carrier employ an independent evaluation program?

☐ YES **If no or N/A, explain:**
☐ No
☐ N/A

4. Does the air carrier document their process measurement methods and results?

☐ YES **If no, explain:**
☐ No

5. Are the air carrier's process measurement methods effective?

☐ YES **If no, explain:**
☐ No

6. Does the air carrier use their process measurement results to improve their programs?

☐ YES **If no, explain:**
☐ No

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4.2.8 Simulators/Training Devices

SECTION 5 - PROCESS MEASUREMENT ATTRIBUTE

7. Are the process measurement results accessible to the FAA?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the organization that conducts the process measurement have direct access to the person with responsibility for the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
9. Does the air carrier have the resources to support the process measurement for the Simulators/Training Devices process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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4.2.8 Simulators/Training Devices

SECTION 6 – INTERFACES ATTRIBUTE

Objective: To determine if the air carrier identifies and manages the interactions between the Simulators/Training Devices process and the other element processes within the air carrier organization.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Simulators/Training Devices process.
2. Discuss the Simulators/Training Devices process with appropriate personnel to gain an understanding of the interfaces.
3. Observe the Simulators/Training Devices process to gain an understanding of the interfaces.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Are the following interfaces identified for the Simulators/Training Devices process:

1.1 Inspection Program (Element 1.3.2)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.2 Flight Attendant Duties/Cabin Procedures (Element 3.1.2)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.3 Airman Duties/Flight Deck Procedures (Element 3.1.3)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.4 Operational Control (Element 3.1.4)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.5 Aircraft Performance Operating Limitations (Element 3.1.9)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.6 Safety Program (Element 7.2.1)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.7 Training of Flight Crewmembers (Element 4.2.3)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.8 Outsource Crewmember Training (Element 4.2.9)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A

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4.2.8 Simulators/Training Devices		
SECTION 6 – INTERFACES ATTRIBUTE		
<i>1.9 Crewmember and Dispatch Qualifications (Subsystem 4.3)</i>	<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> N/A	If no or N/A, explain:
<i>1.10 National Simulator Program Manager</i>	<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> N/A	If no or N/A, explain:
<i>1.11 Principal Operations Inspector</i>	<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> N/A	If no or N/A, explain:
<i>1.12 Manual Currency (Element 2.1.1)</i>	<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> N/A	If no or N/A, explain:
<i>1.13 Content Consistency Across Manuals (Element 2.1.2)</i>	<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> N/A	If no or N/A, explain:
<i>1.14 Manual Distribution (Element 2.1.3)</i>	<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> N/A	If no or N/A, explain:
<i>1.15 Manual Availability (Element 2.1.4)</i>	<input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> N/A	If no or N/A, explain:
2. List any additional interfaces identified:		
3. Are there written procedures for the use of air carrier personnel in the application of these interfaces?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain:
4. Are there controls to ensure that interfaces occur?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain:
5. Are the interfaces between the Simulators/Training Devices process and other processes treated consistently in the Manual(s)?	<input type="checkbox"/> YES <input type="checkbox"/> NO	If no, explain: